

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE TRAFFIC SIGNAL AT US 13 BUSINESS (S. SALISBURY BLVD.) AND BATEMAN STREET IN WICOMICO COUNTY. THE MAINLINE LEFT TURNS WILL BE UPGRADED FROM EXCLUSIVE/PERMISSIVE TO EXCLUSIVE PHASING. US 13 BUSINESS IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA SIX PHASE, FULL-TRAFFIC-ACTUATED MODE. THE MAINLINE LEFT TURNS WILL BE UPGRADED FROM EXCLUSIVE/PERMISSIVE TO EXCLUSIVE PHASING. THE EXISTING CONCURRENT SIDE STREET PHASING AND EMERGENCY PRE-EMPTION PHASES ON US 13 BUSINESS WILL REMAIN.

CONTROLLER REQUIREMENTS

INSTALL A NEMA SIZE 6 BASE MOUNTED CABINET AND FOUNDATION. THE SHA SIGNAL SHOP WILL INSTALL ONE (1) VIDEO INTERFACE EQUIPMENT, ONE (1) 4 CHANNEL DETECTOR AMPLIFIER, AND ALL ASSOCIATED EQUIPMENT AND HARNESSES WITHIN THE CABINET.

PHONE DROP

THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT 410-787-7635 TO ARRANGE FOR THE PHONE DROP LINE INSTALLATION. THE CONTRACTOR IS TO NOTIFY MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE AND PHONE NUMBER.

THE CONTACT PERSONS FOR DISTRICT #1 / OOTS ARE AS FOLLOWS:

Mr. Gene Coffell
Assistant District Engineer - Traffic
410-677-4040

Mr. Bruce W. Poole
District Utility Engineer
410-677-4082

Mr. James R. Wright
Assistant District Engineer - Maintenance
410-677-4010

Office Of Traffic & Safety

Mr. Richard L. Daff Sr.
Chief, Traffic Operations Division
Phone: 410-787-7630

Mr. Robert Snyder
Assistant Division Chief, Traffic Operations
410-787-7630

Mr. Edward Rodenhizer
Team Leader Signal Operations
Phone: 410-787-7630

Mr. Eugene Bailey
Team Leader Sign Operations
410-787-7670

The Power Company Representative is:
Delmarva Power
2530 N Salisbury Blvd.
Salisbury, Maryland
1-800-375-7117

EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE SHA.

ITEM NO.	QUANTITY	DESCRIPTION
9016	1 EA	[UPDATED] 4 CHANNEL DETECTOR AMPLIFIER
9044	1 EA	[UPDATED] CONTROLLER CABINET, SIZE 6
9086	1 EA	[UPDATED] VIDEO DETECTION INTERFACE EQUIPMENT: 1-4 CAMERAS
9570	28 SF	[UPDATED] SHEET ALUMINUM GROUND MOUNTED SIGN 1 EA - SHIELD ASSEMBLY (36 IN. x 75 IN.) 'NORTH, BUSINESS US 13, DOGLEG LEFT ARROW' 1 EA - SHIELD ASSEMBLY (24 IN. x 51 IN.) 'NORTH, BUSINESS US 13, RIGHT ARROW'
9571	74 SF	[UPDATED] SHEET ALUMINUM MAST ARM/POLE MOUNTED SIGN: 2 EA - D-30 (VAR x 16 IN.) "BATEMAN STREET" 2 EA - R3-5 (L) (30 IN. x 36 IN.) 1 EA - SHIELD ASSEMBLY (36 IN. x 75 IN.) 'SOUTH, BUSINESS US 13, DOGLEG LEFT ARROW' 1 EA - SHIELD ASSEMBLY (36 IN. x 75 IN.) 'SOUTH, BUSINESS US 13, RIGHT ARROW'

EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

ITEM NO.	QUANTITY	DESCRIPTION
1003	3 EA	MAINTENANCE OF TRAFFIC
2002	3 CY	TEST PIT EXCAVATION
6001	50 LF	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
6002	75 SF	5 INCH CONCRETE SIDEWALK
6003	22 SF	DETECTABLE WARNING SURFACE
8006	1 EA	ANY SIZE LIGHTING ARM ON SIGNAL POLE WITH 250 WATT HPS LAMP AND LUMINAIRE
8016	1 EA	MAST ARM POLE & 60 FT. MAST ARM ANY "T" DIMENSION
8020	4 EA	NONINVASIVE DETECTOR (ANY LENGTH) LEAD IN CABLE UP TO 1000 FT
8021	1 EA	REMOVE & DISPOSE OF MATERIAL & EQUIPMENT PER ASSIGNMENT
8024	1 EA	TWIN MAST ARM POLE & 50 FT. / 70 FT. MAST ARMS ANY "T" DIMENSION
8030	100 LF	DISCONNECT, PULL-BACK & REROUTE CABLES
8032	240 LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - BORED
8034	600 LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - TRENCHED
8036	108 SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8038	200 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8041	1 EA	METERED SERVICE PEDESTAL EMBEDDED
8043	150 LF	ELECTRICAL CABLE 1-CONDUCTOR NO. 4 AWG-THHN/THWN
8045	7 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8046	1 EA	DISCRIMINATOR MODULE, 4 CHANNEL, NO. 764
8048	2 EA	OPTICOM NO. 721 DETECTOR EYE
8049	30 LF	3 INCH DIAMETER POLYVINYL CHLORIDE CONDUIT, SCHEDULE 80, RISER
8050	36 EA	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8051	400 LF	FURNISH AND INSTALL 4 CONDUCTOR OPTICOM CABLE
8056	100 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8057	1900 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
8058	150 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG) TC
8065	1 EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT
8069	4 EA	RELOCATE EXISTING VIDEO DETECTION CAMERA
8070	4 EA	CONTROL CABLE, 250 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER

EQUIPMENT LIST 'C'

EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

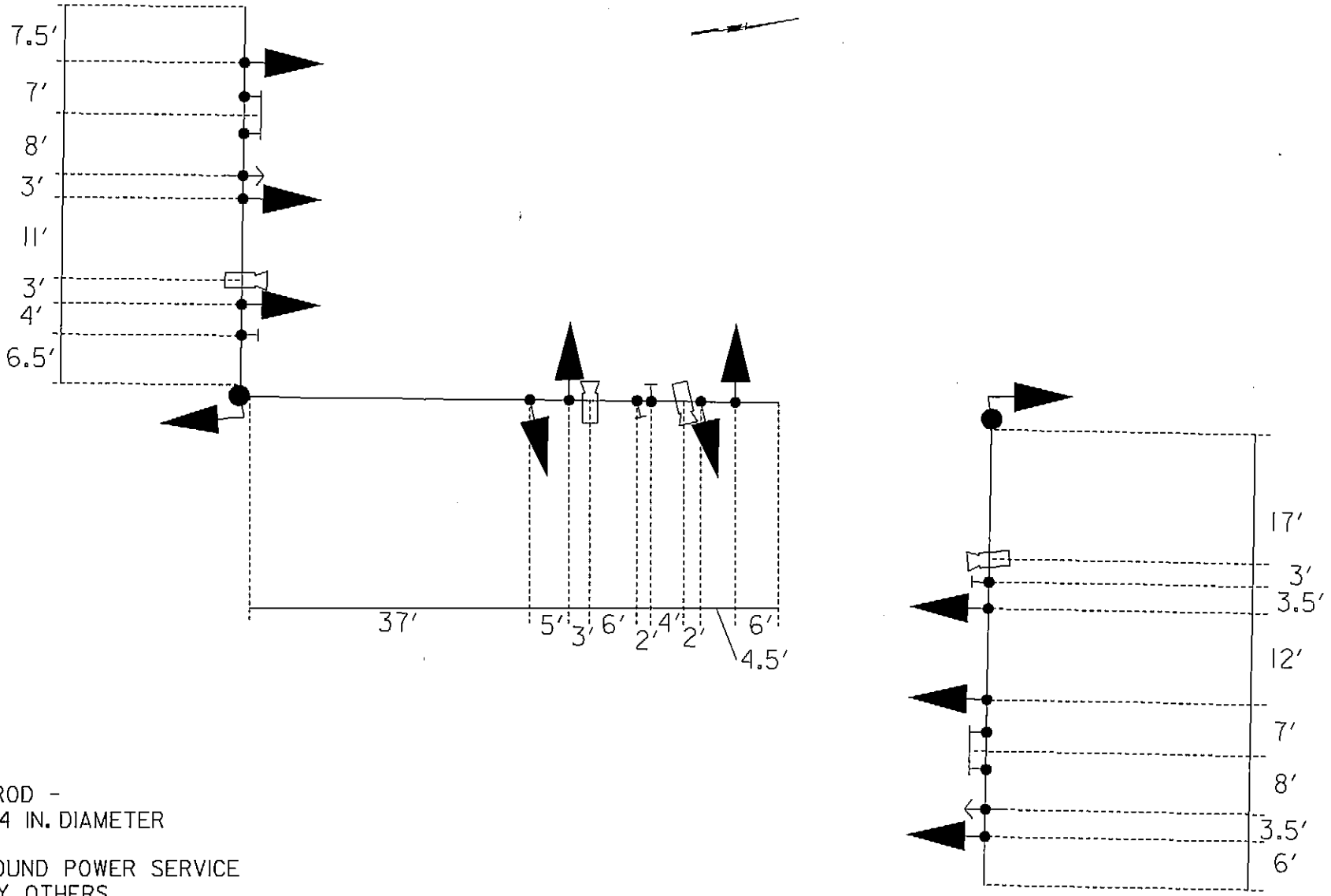
ITEM NO. QUANTITY DESCRIPTION

NONE - ALL REMOVED EQUIPMENT SHALL BECOME THE PROPERTY OF THE CONTRACTOR

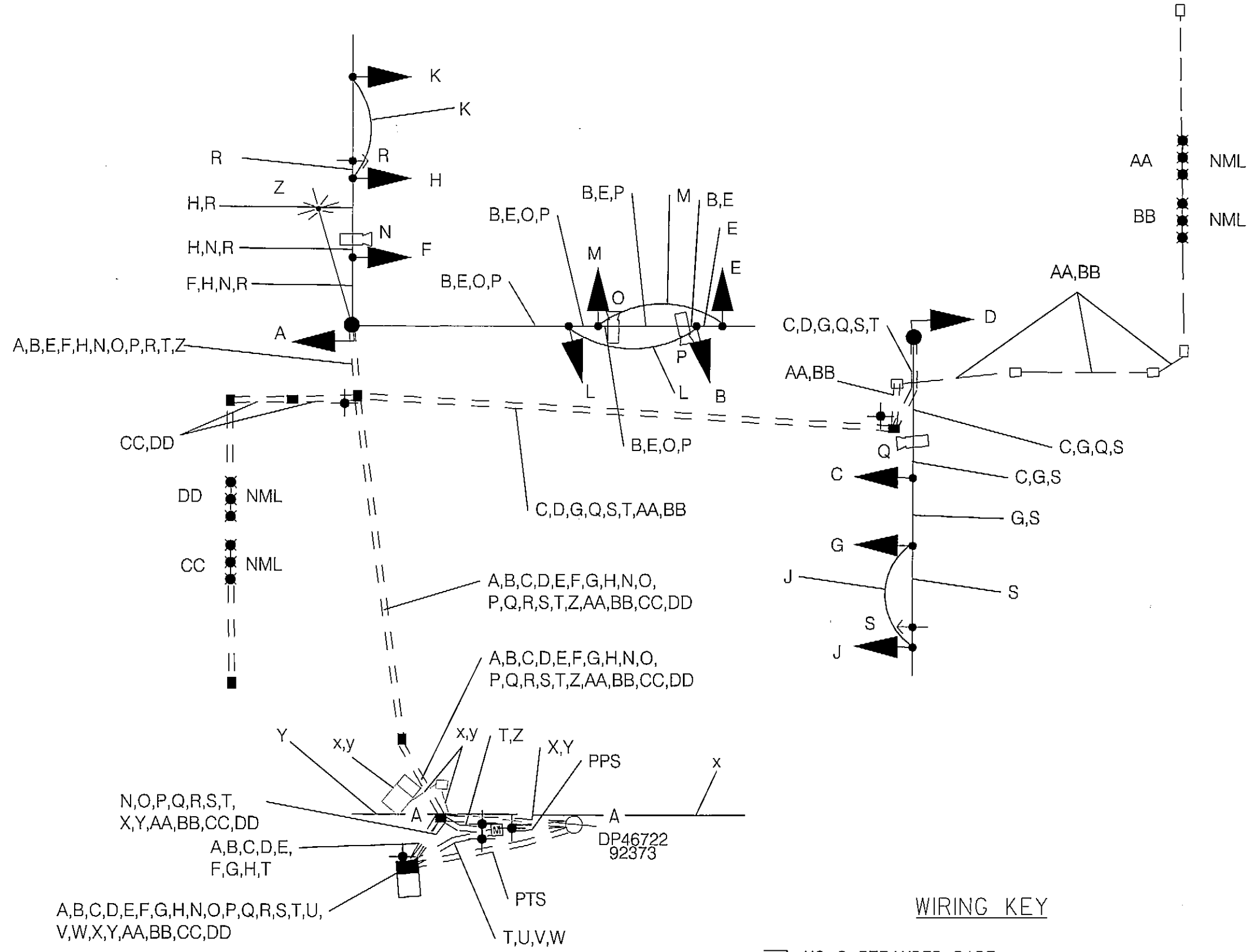
PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12
	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)
PHASE 1 AND 5	<G-	<G-	R	R	<G-	<G-	R	R	R	R	R	R
1 AND 5 CHANGE TO 1 AND 6, 2 AND 5, OR 2 AND 6												
PHASE 1 & 6	<G-	<G-	G	G	<R-	<R-	R	R	R	R	R	R
1 CHANGE	<Y-	<Y-	G	G	<R-	<R-	R	R	R	R	R	R
PHASE 2 & 5	<R-	<R-	R	R	<G-	<G-	G	G	R	R	R	R
5 CHANGE	<R-	<R-	R	R	<Y-	<Y-	G	G	R	R	R	R
PHASE 2 & 6	<R-	<R-	G	G	<R-	<R-	G	G	R	R	R	R
2 AND 6 CHANGE	<R-	<R-	Y	Y	<R-	<R-	Y	Y	R	R	R	R
PHASE 4 & 8	<R-	<R-	R	R	<R-	<R-	R	R	G	G	G	G
4 & 8 CHANGE	<R-	<R-	R	R	<R-	<R-	R	R	Y	Y	Y	Y
PRE-EMPTION 1	<G-	<G-	G	G	<R-	<R-	R	R	R	R	R	R
PRE-EMPTION 1 CHANGE	<Y-	<Y-	Y	Y	<R-	<R-	R	R	R	R	R	R
PRE-EMPTION 2	<R-	<R-	R	R	<G-	<G-	G	G	R	R	R	R
PRE-EMPTION 2 CHANGE	<R-	<R-	R	R	<Y-	<Y-	Y	Y	R	R	R	R
FLASHING OPERATION	FL<R-	FL<R-	FL<Y	FL<Y	FL<R-	FL<R-	FL<Y	FL<Y	FL<R	FL<R	FL<R	FL<R

PROPOSED SIGNAL EQUIPMENT LAYOUT DETAIL



WIRING DIAGRAM



WIRING KEY

- T - NO. 6 STRANDED BARE COPPER GROUND WIRE
- U - ELECTRICAL CABLE - 1 CONDUCTOR NO. 4 AWG, THHN/THWN
- X - EXISTING INTERCONNECT CABLE NORTH TO WEST COLLEGE AVE.
- Y - EXISTING INTERCONNECT CABLE SOUTH TO DOGWOOD DRIVE
- X - REROUTED INTERCONNECT CABLE NORTH TO WEST COLLEGE AVE.
- Y - REROUTED INTERCONNECT CABLE SOUTH TO DOGWOOD DRIVE
- Z - ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG) TC
- AA - NONINVASIVE DETECTOR, 100 FT. LEAD IN CABLE
- BB - NONINVASIVE DETECTOR, 100 FT. LEAD IN CABLE
- CC - NONINVASIVE DETECTOR, 100 FT. LEAD IN CABLE
- DD - NONINVASIVE DETECTOR, 100 FT. LEAD IN CABLE
- PPS - PROPOSED UNDERGROUND POWER SERVICE TO BE INSTALLED BY OTHERS.
- PTS - PROPOSED UNDERGROUND TELEPHONE SERVICE TO BE INSTALLED BY OTHERS.
- NML - NONINVASIVE MICRO LOOP DETECTOR
- OPTICOM - OPTICOM DETECTOR EYE

- A - ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
- B - ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
- C - ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
- D - ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
- E - ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
- F - ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
- G - ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
- H - ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
- I - ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
- J - ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
- K - ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
- L - ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
- M - ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
- N - CONTROL CABLE, VIDEO DETECTION CAMERA TO CONTROLLER, 250 FT.
- O - CONTROL CABLE, VIDEO DETECTION CAMERA TO CONTROLLER, 250 FT.
- P - CONTROL CABLE, VIDEO DETECTION CAMERA TO CONTROLLER, 250 FT.
- Q - CONTROL CABLE, VIDEO DETECTION CAMERA TO CONTROLLER, 250 FT.
- R - 4 CONDUCTOR OPTICOM CABLE
- S - 4 CONDUCTOR OPTICOM CABLE

STV Incorporated
engineers / architects / planners / construction managers
7125 Ambassador Road Baltimore, MD 21244-2722 (410) 944-9112

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
US 13 BUSINESS (S. SALISBURY BLVD.)
AT BATEMAN STREET

GENERAL INFORMATION

SCALE	NONE	ADVERTISED DATE	2-15-2009	CONTRACT NO.	XX4435185
DESIGNED BY	MMO	COUNTY	WICOMICO		
DRAWN BY	MMO	LOGMILE	22B01303.87		
CHECKED BY	SDY	TIMS NO.	J029		
F.A.P. NO.		TOD NO.			
TS NO. 1498H-GI	DRAWING SG	2 OF 2	SHEET NO.	2 OF 2	